REMARKS

By the foregoing amendment, the informality in claim 1 noted by the Examiner has been corrected. As a result, it is respectfully submitted that the claim objection is no longer pertinent.

Claims 1, 4-7, 9-12, 14, 16 and 18-20 were rejected under 35 U.S.C. § 102 over Kodama while claims 8, 13 15 and 17 were rejected under 35 U.S.C. § 103 over Kodama in view of Nomura. Both of these rejections are respectfully traversed.

Ceramics generally undergo a large dimensional change (shrinkage) when they are sintered and this can cause major problems. A number of methods have been proposed to address this problem. In what is called the non-shrinkage method, the shrinkage of the in green ceramic laminate in the plane (X-Y) direction is largely restrained while the laminate shrinks in the lamination (Z) direction during firing. However, if the green laminate which is being fired contains a cavity, the surface of the resulting laminate will be greatly warped or distorted as a result of the firing. In the present invention, that problem is addressed by providing a sintered plate having an area smaller than the area of the primary face of the green layer for the substrate on which the plate is arranged as well as having a thickness which is less than that of the green layer on which the plate is arranged and disposing the sintered plate in the cavity formed in the green layer. As a result, warping or distortion of the surface of the laminate during firing can be effectively retarded. As pointed out on page 15 of this application, since the sintered plate has reduced thickness (see, e.g., Fig. 4), firing of the unsintered composite laminate including the sintered plate can be performed without problems. As pointed out on page 11, when the shape of the sintered plate is about 100 μm or less, the shrinkage behavior in the direction of thickness need not be severely controlled.

The features of the claimed invention are not taught or suggested by the cited art whether considered alone or in combination.

The Kodama patent relates to a method of producing a multilayer ceramic body having improved dimensional accuracy by providing a sintered body in which the whole or a part of a side surface has a curve surface. This is attained by controlling both the pressure applied and the optimum level of the frictional or constraining force between a material which applies pressure and the material to which pressure is applied. While an embodiment is disclosed which includes embedding a substrate which has been fired as an interior layer of the composite body, there is no teaching or suggestion of providing a multilayer body which includes a plurality of green layers, a green layer having a cavity and a sintered plate of a fired first ceramic functional material disposed in that cavity. It also does not teach or suggest that the sintered plate have an area smaller than the area of the primary face of the green layer for the substrate on which the plate is arranged nor does it teach or suggest that the sintered plate have a thickness which is smaller than the thickness of the green layer on which the plate is arranged. Kodama indicates that the fired substrate is a substitute for one of the layers of the laminate and as such, it would have the same thickness as the other layers.

Nomura is being relied upon with respect to the specific dimension of the plate is some dependent claims. The current Office Action advances the proposition that the thickness of the capacitor would be in the range of 100 μm or less if one takes the number and thicknesses within the preferred range suggested by Nomura into consideration. Even if that assertion is correct, neither the calculation nor anything else in this reference suggests that the thickness of a sintered plate be different from that of the green layers.

In light of all of the foregoing, it is respectfully submitted that this application is now in condition to be allowed and the early issuance of a Notice of Allowance is respectfully solicited.

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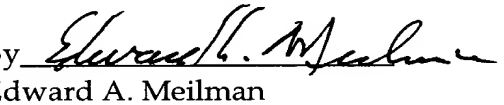
Respectfully submitted,

By 

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